a) a multilayer balloon comprising a polymeric first layer having a plasma polymerized functionality covalently bonded to at least a section of a first surface of the first layer, and a polymeric second layer bonded to the section of the first surface of the first layer; and

b) an elongated shaft having an inflation lumen, and bonded to the balloon, so that an interior of the balloon is in fluid communication with the inflation lumen.

(New) 34. The balloon catheter of claim 33 wherein the first layer is an outer layer of the balloon and the second layer is an inner layer of the balloon, so that the first surface of the first layer bonded to the second layer is an inner surface of the first layer.

(New) 35. The balloon catheter of claim 33 wherein the first layer is fusion bonded to the second layer.

(New) 36. The balloon catheter of claim 33 wherein the plasma polymerized functionality is selected from the group consisting of carboxylate, amine, and sulfate.

(New) 37. The balloon catheter of claim 33 wherein the plasma polymerized functionality is plasma polymerized acrylic acid.

(New) 38. The balloon catheter of claim 33 wherein the balloon has proximal and distal skirt sections bonded to the shaft, and the first layer along at least a portion of the proximal and distal skirts sections of the balloon has an inner surface which has a plasma polymerized functionality bonded thereto, and which is bonded to the shaft.

(New) 39. The balloon catheter of claim 33 wherein the first layer is formed at least in part of a polymeric material selected from the group consisting of a

fluoropolymer, polytetrafluoroethylene, expanded polytetrafluoroethylene, and ultra high molecular weight polyethylene.

(New) 40. The balloon catheter of claim 33 wherein the first layer is formed at least in part of a polymeric material having a node and fibril microstructure.

(New) 41. The balloon catheter of claim 33 wherein the plasma polymerized functionality comprises a film having a thickness of about 10 nm to about 150 nm.